

PATENT COOPERATION TREATY

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From the INTERNATIONAL SEARCHING AUTHORITY

To:

FAY, SHARPE, FAGAN, MINNICH & MCKEE
LPP

Attn. Kocovsky, Thomas E. Jr.
1100 Superior Avenue, Seventh Floor
Cleveland, OH 44114-2579
UNITED STATES OF AMERICA

FAY, SHARPE, FAGAN, MINNICH & MCKEE
NOTIFICATION OF TRANSMITTAL OF
THE INTERNATIONAL SEARCH REPORT
OR THE DECLARATION

(PCT Rule 44.1)

Date of mailing
(day/month/year)

11/03/2004

Applicant's or agent's file reference

ESNZ 2 00028

FOR FURTHER ACTION

See paragraphs 1 and 4 below

International application No.

PCT/US 03/33240

International filing date
(day/month/year)

22/10/2003

Applicant

TCAM TECHNOLOGIES, INC.

1. ☒ The applicant is hereby notified that the International Search Report has been established and is transmitted herewith.

Filing of amendments and statement under Article 19:

The applicant is entitled, if he so wishes, to amend the claims of the International Application (see Rule 46):

When? The time limit for filing such amendments is normally 2 months from the date of transmittal of the International Search Report; however, for more details, see the notes on the accompanying sheet.

Where? Directly to the International Bureau of WIPO
34, chemin des Colombettes
1211 Geneva 20, Switzerland
Facsimile No.: (41-22) 740.14.35

For more detailed instructions, see the notes on the accompanying sheet.

2. ☐ The applicant is hereby notified that no International Search Report will be established and that the declaration under Article 17(2)(a) to that effect is transmitted herewith.

3. ☐ **With regard to the protest** against payment of (an) additional fee(s) under Rule 40.2, the applicant is notified that:

☐ the protest together with the decision thereon has been transmitted to the International Bureau together with the applicant's request to forward the texts of both the protest and the decision thereon to the designated Offices.

☐ no decision has been made yet on the protest; the applicant will be notified as soon as a decision is made.

4. **Further action(s):** The applicant is reminded of the following:

Shortly after **18 months** from the priority date, the international application will be published by the International Bureau. If the applicant wishes to avoid or postpone publication, a notice of withdrawal of the international application, or of the priority claim, must reach the International Bureau as provided in Rules 90bis.1 and 90bis.3, respectively, before the completion of the technical preparations for international publication.

Within **19 months** from the priority date, a demand for international preliminary examination must be filed if the applicant wishes to postpone the entry into the national phase until 30 months from the priority date (in some Offices even later).

Within **20 months** from the priority date, the applicant must perform the prescribed acts for entry into the national phase before all designated Offices which have not been elected in the demand or in a later election within 19 months from the priority date or could not be elected because they are not bound by Chapter II.

Name and mailing address of the International Searching Authority



European Patent Office, P.B. 5818 Patentlaan 2
NL-2280 HV Rijswijk
Tel. (+31-70) 340-2040, Tx. 31 651 epo nl,
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Authorized officer

Myriam Weber

"DOCKETED"

PATENT COOPERATION TREATY

PCT

INTERNATIONAL SEARCH REPORT

(PCT Article 18 and Rules 43 and 44)

Applicant's or agent's file reference ESNZ 2 00028	FOR FURTHER ACTION <small>see Notification of Transmittal of International Search Report (Form PCT/ISA/220) as well as, where applicable, item 5 below.</small>	
International application No. PCT/US 03/33240	International filing date (day/month/year) 22/10/2003	(Earliest) Priority Date (day/month/year) 23/10/2002
Applicant TCAM TECHNOLOGIES, INC.		

This International Search Report has been prepared by this International Searching Authority and is transmitted to the applicant according to Article 18. A copy is being transmitted to the International Bureau.

This International Search Report consists of a total of 5 sheets.

☒ It is also accompanied by a copy of each prior art document cited in this report.

1. Basis of the report

a. With regard to the **language**, the international search was carried out on the basis of the international application in the language in which it was filed, unless otherwise indicated under this item.

☐ the international search was carried out on the basis of a translation of the international application furnished to this Authority (Rule 23.1(b)).

b. With regard to any **nucleotide and/or amino acid sequence** disclosed in the international application, the international search was carried out on the basis of the sequence listing:

☐ contained in the international application in written form.

☐ filed together with the international application in computer readable form.

☐ furnished subsequently to this Authority in written form.

☐ furnished subsequently to this Authority in computer readable form.

☐ the statement that the subsequently furnished written sequence listing does not go beyond the disclosure in the international application as filed has been furnished.

☐ the statement that the information recorded in computer readable form is identical to the written sequence listing has been furnished

2. ☐ **Certain claims were found unsearchable** (See Box I).

3. ☐ **Unity of invention is lacking** (see Box II).

4. With regard to the **title**,

☒ the text is approved as submitted by the applicant.

☐ the text has been established by this Authority to read as follows:

5. With regard to the **abstract**,

☐ the text is approved as submitted by the applicant.

☒ the text has been established, according to Rule 38.2(b), by this Authority as it appears in Box III. The applicant may, within one month from the date of mailing of this international search report, submit comments to this Authority.

6. The figure of the **drawings** to be published with the abstract is Figure No.

☐ as suggested by the applicant.

☐ because the applicant failed to suggest a figure.

☒ because this figure better characterizes the invention.

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☐ None of the figures.

INTERNATIONAL SEARCH REPORT

International application No.

PCT/US 03/33240

Box III TEXT OF THE ABSTRACT (Continuation of item 5 of the first sheet)

A decubitus mat includes a plurality of individual cells (16) which are pressurized by air from an air supply (10) through air supply lines (12) and metering orifices (14). A polymer sensor/vent structure (20) is mounted on a top surface of each cell to be contacted by a body (22) resting on the mat. The sensor/vent structure defines a plurality of polymer-filled channels (28) and a vent valve (26) which is biased to a closed position. As the body heats the polymer, it undergoes a phase change and expands, causing biasing forces (30) which bias the vent valve to open. When the vent valve opens, the air in the cell is released, providing an air flow to remove pooled moisture under the body. The vented cell collapses, transferring support to adjoining cells until it no longer contacts the body. Once removed from the body, the air flow in the cell cools the polymer, closing the vent, allowing the cell to re-pressurize. The polymer is selected such that the cells slightly over and under-deflate in each cycle, creating a massaging action.

INTERNATIONAL SEARCH REPORT

International Application No
PCT/US 03/33240

A. CLASSIFICATION OF SUBJECT MATTER

IPC 7 A61G7/057 F16K31/00 F16K15/14 F16K15/18 A47C27/08
A47C27/10

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

IPC 7 A47C

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

EPO-Internal

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	US 2001/032365 A1 (SRAMEK ROGER) 25 October 2001 (2001-10-25) paragraph '24 31!; figures 1a-1g	117
A	EP 1 240 852 A (EUPEN KABELWERK) 18 September 2002 (2002-09-18) column 7, lines 3-8; figures 1-4	11617
A	US 5 001 793 A (LUI YUI-CHING) 26 March 1991 (1991-03-26) column 3, line 60 - column 4, line 10; figures 1-5	11617
A	US 2001/020303 A1 (ENDO TATSUO ET AL) 13 September 2001 (2001-09-13) paragraph '0050!; figures 1-19	11617
	-/-	

☒ Further documents are listed in the continuation of box C.

☒ Patent family members are listed in annex.

* Special categories of cited documents:

- *A* document defining the general state of the art which is not considered to be of particular relevance
- *E* earlier document but published on or after the international filing date
- *L* document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)
- *O* document referring to an oral disclosure, use, exhibition or other means
- *P* document published prior to the international filing date but later than the priority date claimed

- *T* later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention
- *X* document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone
- *Y* document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art.
- *&* document member of the same patent family

Date of the actual completion of the international search

3 March 2004

Date of mailing of the international search report

11/03/2004

Name and mailing address of the ISA

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Authorized officer

Vollering, J

INTERNATIONAL SEARCH REPORT

Internation. Application No
PCT/US 03/33240

G.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT		
Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	US 4 280 487 A (JACKSON BARRY N) 28 July 1981 (1981-07-28) column 3, lines 36-66; figures 1-3	11415161 7118
A	US 6 421 858 B1 (CU EACUTE REL PHILIPPE) 23 July 2002 (2002-07-23) column 2, lines 1-24; figures 1-4	117
A	FR 2 692 477 A (FOLIO PHILIPPE; POISSON MARC; LEMAITRE OLIVIER; PFEIFFER DOMINIQUE) 24 December 1993 (1993-12-24) page 13, lines 15-19; figures 1-14	117
A	US 6 154 907 A (CINQUIN GERARD) 5 December 2000 (2000-12-05) column 1, lines 28-45; figures 1-9	117

INTERNATIONAL SEARCH REPORT

Information on patent family members

International Application No
PCT/US 03/33240

Patent document cited in search report		Publication date	Patent family member(s)	Publication date
US 2001032365	A1	25-10-2001	US 2003005521 A1	09-01-2003
EP 1240852	A	18-09-2002	EP 1240852 A1	18-09-2002
US 5001793	A	26-03-1991	NONE	
US 2001020303	A1	13-09-2001	JP 2001327551 A	27-11-2001
US 4280487	A	28-07-1981	CA 1147873 A1	07-06-1983
US 6421858	B1	23-07-2002	CH 693299 A5	30-05-2003
			AT 250374 T	15-10-2003
			CA 2308914 A1	15-01-2001
			DE 50003802 D1	30-10-2003
			EP 1068821 A1	17-01-2001
FR 2692477	A	24-12-1993	FR 2692477 A1	24-12-1993
US 6154907	A	05-12-2000	FR 2766072 A1	22-01-1999
			EP 0926972 A1	07-07-1999
			WO 9904673 A1	04-02-1999